EXHIBIT B
MARKED UP VERSION OF AMENDED CLAIMS

1. (Twice Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) the nucleotide sequence as set forth in SEQ ID NO: 1;

(b) a nucleotide sequence encoding the polypeptide set forth in SEQ ID NO: 2;

(c) ~~a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of (a) or (b); and~~

~~(e)~~ a nucleotide sequence complementary to ~~any~~ either of (a) ~~(c)~~ or (b).

2. (Twice Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide that is at least ~~about 70, 75, 80, 85, 90,~~ 95 ~~, 96, 97, 98, or 99~~ percent identical to the polypeptide set forth in SEQ ID NO: 2, wherein the encoded polypeptide has human E3α ligase activity of the polypeptide set forth in SEQ ID NO: 2;

(b) ~~a nucleotide sequence encoding~~ an allelic variant or splice variant of the nucleotide sequence as set forth in SEQ ID NO: 1, encoding a polypeptide that has human E3α ligase activity of the polypeptide set forth in SEQ ID NO: 2;

(c) ~~a nucleotide sequence of SEQ ID NO: 1; (a); or (b) encoding a polypeptide fragment of at least about 25 amino acid residues, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;~~

~~(d) a nucleotide sequence of SEQ ID NO: 1, or (a) (c) comprising a fragment of at least about 16 nucleotides;~~

~~(e) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of any of (a) (d); and~~

~~(f)~~ a nucleotide sequence complementary to any of (a)-(~~c~~) b).

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3. (Twice Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with at least one conservative amino acid substitution, wherein the polypeptide has ~~an~~ human E3α ligase activity of the polypeptide set forth in SEQ ID NO: 2;

(b) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with at least one amino acid insertion, wherein the polypeptide has ~~an~~ human E3α ligase activity of the polypeptide set forth in SEQ ID NO: 2;

(c) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with at least one amino acid deletion, wherein the polypeptide has ~~an~~ human E3α ligase activity of the polypeptide set forth in SEQ ID NO: 2;

(d) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 which has a C- and/or N-terminal truncation, wherein the polypeptide has ~~an~~ human E3α ligase activity of the polypeptide set forth in SEQ ID NO: 2;

(e) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with at least one modification selected from the group consisting of amino acid substitutions, amino acid insertions, amino acid deletions, C-terminal truncation, and N-terminal truncation, wherein the polypeptide has ~~an~~ human E3α ligase activity of the polypeptide set forth in SEQ ID NO: 2;

(f) ~~a nucleotide sequence of (a)-(e) comprising a fragment of at least about 16 nucleotides;~~

~~(g) a nucleotide sequence which hybridizes under moderately or highly stringent conditions to the complement of any of (a)-(f); and~~

~~(h)~~ a nucleotide sequence complementary to any of (a)-(e).

59. (Twice Amended) A ~~diagnostic~~ reagent comprising a detectably labeled polynucleotide encoding the amino acid sequence set out in SEQ ID NO: 2; or

~~a fragment, variant or homolog thereof including~~ allelic variants ~~and~~ or spliced variants thereof with human E3α ligase activity.

60. (Amended) The ~~diagnostic~~ reagent of claim ~~58~~ 59, wherein said labeled polynucleotide is a first-strand cDNA.

61. (Amended) A method for ~~determine~~ determining the presence of huE3α nucleic acids in a biological sample comprising the steps of:

(a) providing a biological sample suspected of containing huE3α nucleic acids;

(b) contacting the biological sample with a ~~diagnostic~~ reagent according to claim 59 under conditions wherein the ~~diagnostic~~ reagent will hybridize with huE3α nucleic acids contained in said biological sample;

(c) detecting hybridization between huE3α nucleic acid in the biological sample and the ~~diagnostic~~ reagent; and

(d) comparing the level of hybridization between the biological sample and ~~diagnostic~~ reagent with the level of hybridization between a known concentration of huE3α nucleic acid and the ~~diagnostic~~ reagent.

62. (Amended) A method for detecting the presence of huE3α nucleic acids in a tissue or cellular sample comprising the steps of:

(a) providing a tissue or cellular sample suspected of containing huE3α nucleic acids;

(b) contacting the tissue or cellular sample with a ~~diagnostic~~ reagent according to claim 59 under conditions wherein the ~~diagnostic~~ reagent will hybridize with huE3α nucleic acids;

(c) detecting hybridization between huE3α nucleic acid in the tissue or cellular sample and the ~~diagnostic~~ reagent; and

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(d) comparing the level of hybridization between the tissue or cellular sample and ~~diagnostic~~ reagent with the level of hybridization between a known concentration of huE3α nucleic acid and the ~~diagnostic~~ reagent.